

CLAIMS

I claim:

- 5 1. A composite fluid separator, comprising:

a chamber,

said chamber having an inlet port and an outlet port,

a plurality of stacked baffles at an inclined relationship extending between said
inlet port and said outlet port.
- 10 2. The composite fluid separator of Claim 1 wherein said plurality of stacked baffles causes
fluid to flow through said chamber from said inlet port to said outlet port in a serpentine fashion.
- 15 3. The composite fluid separator of Claim 1 wherein said baffles have an increasing angle
relative to a vertical axis.
4. The composite fluid separator of Claim 1 wherein said plurality of stacked baffles each
forms a fluid separation plate across which said composite fluid flows.
- 20 5. The composite fluid separator of Claim 4 wherein each of said fluid separation plates is
comprised of a plurality of triangular shaped baffles.

6. The composite fluid separator of Claim 1 wherein each of said plurality of baffles has a top surface, said top surface having a plurality of layered subplates.

7. A composite fluid separator, comprising:

5 a chamber with a top and bottom surface, a wall surrounding the periphery of said chamber;

an inlet port in said top surface of said chamber,

an outlet port on said wall of said housing; and

10 a plurality of separation flow plates at an inclined relationship extending between said inlet port and said outlet port.

8. The composite fluid separator of Claim 1 wherein alternating separation flow plates of said plurality of separation flow plates have a first side and a second side, wherein said first side is positioned flush with a first chamber side wall and said second side is positioned a
15 predetermined distance from a second chamber side wall, and wherein the remaining separation flow plates of said plurality of separation flow plates have a first side and a second side, wherein said second side is positioned flush with said second chamber side wall and said first side is positioned said predetermined distance from said first chamber side wall.

9. The composite fluid separator of Claim 8 wherein said separation flow plates have an upper and a lower end, said lower end positioned a second predetermined distance from a chamber front wall.

5 10. The composite fluid separator of Claim 7 wherein said plurality of separation flow plates has a top surface, said top surface having a plurality of layered subplates.

11. The composite fluid separator of Claim 10 wherein said plurality of layered subplates are triangular in shape.

12. A composite fluid separator, comprising:

a separation chamber, said separation chamber having an inlet port and an outlet port;

a plurality of baffles positioned between said inlet and outlet port, wherein each of
15 said plurality of baffles has an upper and lower end, said plurality of baffles including a base baffle, said upper ends of each of said plurality of baffles attached to said base baffle in an inclined relationship;

each of said plurality of baffles having an increasing angle of inclination with a vertical axis through said separation chamber as said baffles approach said outlet chamber.

13. The composite fluid separator of Claim 12 wherein each of said lower ends of said plurality of said baffles is positioned a predetermined distance from a chamber front wall.

14. The fluid separator of Claim 13 wherein said plurality of baffles is positioned so that each
5 alternating baffle has a first side and a second side, said first side being flush with a first chamber side wall and said second side of said alternating baffles being positioned from a second chamber side wall a predetermined distance, the remaining of said plurality of baffles have said second side flush with said second chamber side wall and said first side of said plurality of baffles positioned said predetermined distance from said chamber first chamber side wall.

15. A composite fluid separator, comprising:

a separation chamber having an inlet port and an outlet port;

a plurality of fluid separation plates, said fluid separation plates positioned
between said inlet port and said outlet port;

15 wherein said plurality of fluid separation plates are positioned in alternating spaced relationship with a first side wall and a second side wall of said separation chamber.

16. The composite fluid separator of Claim 15 wherein said fluid separation plates are downwardly angled.

17. The composite fluid separator of Claim 15 further comprising a base plate, said base plate separating said separation chamber into a sump area and an outlet area.

18. The composite fluid separator of Claim 17 wherein each of said plurality of fluid
5 separation plates is downwardly angled from said base plate.

19. The composite fluid separator of Claim 18 wherein each of said plurality of fluid
separation plates is separated from a front wall of said separation chamber by a predetermined
distance.

20. The composite fluid separator of Claim 15 wherein each of said fluid separation plates is
comprised of a plurality of subplates.

21. The composite fluid separator of Claim 20 wherein said subplates are triangular in shape.

22. The composite fluid separator of Claim 21 wherein said subplates form a plurality of flow
paths across each of said fluid separation plates.

23. The composite fluid separator of Claim 22 wherein said plurality of flow paths is upward
20 towards said outlet port.

24. The composite fluid separator of Claim 23 wherein said plurality of fluid separation plates are placed in stacked relationship extending upwardly and rearwardly from a front wall of said separation chamber to a base plate, said base plate separating said separation chamber into a sump area and said outlet port.

25. A composite fluid separator, comprising:

a separation chamber having a base plate located therein, said base plate separating said chamber into a sump area and an outlet port;

a plurality of fluid separation plates, said fluid separation plates placed in alternating stacked spaced relationship from a first side wall of said chamber and a second side wall of said chamber, said spaced relationship from said first side wall and said second side wall a first predetermined distance, each of said plates separated from a front wall of said separation chamber by a second predetermined distance.

26. The composite fluid separator of Claim 25 wherein said plurality of fluid separation plates are stacked from a base fluid separation plate to a top fluid separation plate in increasing inclination relative to a vertical axis through said separation chamber.

27. The composite fluid separator of Claim 25 wherein said separation plates are comprised of a plurality of subplates.

28. The composite fluid separator of Claim 27 wherein said subplates are triangular.

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29. The composite fluid separator of Claim 28 wherein said triangular subplates form a plurality of flow channels across each of said plates.

30. The composite fluid separator of Claim 28 wherein said subplates range in size from a larger subplate at a bottom surface of said fluid separation plate to increasing smaller fluid separation plates.

31. The composite fluid separator of Claim 8 wherein said outlet port is further comprised of an opening and said opening encompasses a filtration/coalescing device.

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